

**WHAT IS CLAIMED IS:**

1 1. A method for determining if a first and a second device are co-located,  
2 comprising the steps of:  
3 sampling a sample signal at the first device and responsively generating a  
4 first representative signal of the sample signal;  
5 sampling the sample signal at the second device and responsively  
6 generating a second representative signal of the sample signal;  
7 transmitting the second representative signal to the first device; and  
8 comparing the first representative signal to the second representative  
9 signal.

1 2. The method of claim 1, wherein the sample signal comprises an acoustic  
2 signal.

1 3. The method of claim 1, wherein the sample signal comprises a light signal.

1 4. The method of claim 1, wherein the first and second representative signals  
2 comprise a digitized signal of the sample signal.

1 5. The method of claim 1, wherein the step of comparing comprises  
2 correlated envelope signal analysis of the first and second representative signal  
3 to determine if the first and second representative signals are similar in form.

1 6. The method of claim 1, wherein the step of comparing comprises  
2 harmonic frequency signal analysis of the first and second representative signal  
3 to determine if the first and second representative signals are similar in form.

1 7. The method of claim 1, wherein the step of comparing comprises cross-  
 2 correlating the first and second representative signal to determine if the first and  
 3 second representative signals are similar in form.

1 8. The method of claim 1, wherein the first device is a base station and the  
 2 second device is a remote device.

1 9. The method or claim 1, wherein the first device is a remote device and the  
 2 second device is a base station.

1 10. The method of claim 1, wherein the sample signal is generated by the first  
 2 device.

1 11. The method of claim 1, wherein the sample signal is generated by the  
 2 second device.

1 12. The method of claim 1, wherein the first and second device communicate  
 2 wirelessly.

1 13. A method for discriminating between data received from co-located and  
 2 non co-located devices, comprising the steps of:  
 3 receiving at a base station data from a remote device;  
 4 sampling a sample signal at the remote device and responsively  
 5 generating a first representative signal of the sample signal;  
 6 sampling the sample signal at the base station and responsively  
 7 generating a second representative signal of the sample signal;  
 8 determining if the base station and the remote device are co-located; and  
 9 processing the data received by the base station if the remote device is co-  
 10 located.

1 14. The method of claim 13, wherein the data is embodied in the form of radio  
2 frequency.

1 15. The method of claim 13, wherein the step of determining further  
2 comprises transmitting the first and second representative signals to a third  
3 device known to be co-located with the base station for comparison.

1 16. The method of claim 13, wherein the step of determining further  
2 comprises transmitting the first representative signal to the base station for  
3 comparison.

1 17. The method of claim 13, wherein the step of determining further  
2 comprises transmitting the second representative signal to the remote device for  
3 comparison.

1 18. A system for determining if a first device and a second device are co-  
2 located comprising:  
3 a first sensor located at the first device for receiving a sample signal, the  
4 first device responsively generating a first signal representing the sample signal;  
5 a second sensor located at the second device for receiving a sample signal,  
6 the second device responsively generating a second signal representing the  
7 sample signal;  
8 a transmission device located at the first device for transmitting the first  
9 signal to the second device;  
10 a receiving device located at the second device for receiving the first signal  
11 from the first device; and  
12 a signal analysis device for determining if the first and second devices are  
13 co-located.

- 1 19. The system of claim 18, wherein the first and second sensor comprise an  
2 acoustic sensor and the sample signal is an acoustic signal.
- 1 20. The system of claim 18, wherein the first and second sensor comprise a  
2 photodetector and the sample signal is a modulated beam of light.
- 1 21. The system of claim 18, wherein the first device is a remote device and the  
2 second device is a base station.
- 1 22. The system of claim 18, wherein the first device is a base station and the  
2 second device is a remote device.
- 1 23. The system of claim 18, wherein the signal analysis device compares the  
2 first and second signals in order to determine if the first and second devices are  
3 co-located.
- 1 24. The system of claim 18, wherein the signal analysis device is coupled to  
2 the first device.
- 1 25. The system of claim 18, wherein the signal analysis device is coupled to  
2 the second device.
- 1 26. The system of claim 18, wherein the signal analysis device is coupled to a  
2 third device, the third device known to be co-located with the first device.
- 1 27. The system of claim 18, wherein the signal analysis device is coupled to a  
2 third device, the third device known to be co-located with the second device.

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- 1 28. A system for determining if a first and second device are co-located
- 2 comprising:
- 3 means for sampling a sample signal at the first device;
- 4 means for responsively generating a first representative signal of the
- 5 sample signal at the first device;
- 6 means for sampling the sample signal at the second device;
- 7 means for responsively generating a second representative signal of the
- 8 sample signal at the second device;
- 9 means for transmitting the second representative signal to the first device;
- 10 and
- 11 means for comparing the first representative signal to the second
- 12 representative signal.
  
- 1 29. A computer readable medium having embodied thereon a program, the
- 2 program being executable by a machine to perform method steps for
- 3 determining if a first and a second device are co-located, the method steps
- 4 comprising:
- 5 sampling a sample signal at the first device and responsively generating a
- 6 first representative signal of the sampled signal;
- 7 receiving from the second device a second representative signal of the
- 8 sample signal; and
- 9 comparing the first representative signal to the second representative
- 10 signal.

- 1 30. A method for discriminating between data received from co-located and
- 2 non co-located devices, comprising the steps of:
- 3 receiving at a remote device data from a base station;
- 4 sampling a sample signal at the base station and responsively generating a
- 5 first representative signal of the sample signal;
- 6 sampling the sample signal at the remote device and responsively
- 7 generating a second representative signal of the sample signal;
- 8 determining if the remote device and the base station are co-located; and
- 9 processing the data received by the remote device if the base station is co-
- 10 located.